

primer having a covalently-attached donor molecule comprising a fluorophore or a fluorescent dye;

(b) performing a primer extension reaction in the presence of a dideoxy nucleotide complementary to the target nucleotide, said dideoxy nucleotide having a covalently-attached acceptor molecule comprising a fluorophore or a fluorescent dye, said acceptor molecule being capable of being activated through fluorescent energy transfer from said donor molecule so as to produce a detectable fluorescent signal when said dideoxy nucleotide is incorporated into a product resulting from the primer extension reaction;

(c) determining the presence of said fluorescent signal, said presence being indicative of incorporation of said dideoxy nucleotide into the primer extension product; and

(d) determining the presence of said target nucleotide as indicated by the incorporation of said dideoxy nucleotide into the primer extension product.

10. (Twice Amended) The method of claim 1, wherein said fluorescent dye is selected from the group consisting of 6-carboxyfluorescein (FAM), 6-carboxy-X-rhodamine (REG), N₁, N₁ N¹, N¹-tetramethyl-6-carboxyrhodamine (TAMARA), 6-carboxy-X-rhodamine (ROX), fluorescein, Cy5® and LightCycler-Red 640.

19. (Amended) The method of claim 18, wherein said mutation occurs in a gene selected from the group consisting of ras oncogenes, p53, dcc, apc, mcc and β -catenin.

25. (New) A method for determining the presence of a target nucleotide, the method comprising the steps of:

- (a) exposing a biological sample comprising a bodily fluid to a nucleic acid primer capable of hybridizing with a nucleic acid, said primer having a covalently-attached donor molecule comprising a fluorophore or a fluorescent dye;
- (b) performing a primer extension reaction in the presence of a dideoxy nucleotide complementary to the target nucleotide, said dideoxy nucleotide having a covalently-attached acceptor molecule comprising a fluorophore or a fluorescent dye, said acceptor molecule being capable of being activated through fluorescent energy transfer from said donor molecule so as to produce a detectable fluorescent signal when said dideoxy nucleotide is incorporated into a product resulting from the primer extension reaction;
- (c) determining the presence of said fluorescent signal, said presence being indicative of incorporation of said dideoxy nucleotide into the primer extension product; and
- (d) determining the presence of said target nucleotide as indicated by the incorporation of said dideoxy nucleotide into the primer extension product.

26. (New) The method of claim 25, wherein said bodily fluid is selected from the group consisting of pus, semen, sputum, saliva, cerebrospinal fluid, biopsy tissue and lymph.

27. (New) The method of claims 1 or 25, wherein said biological sample is obtained from a pooled patient population.

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